What is claimed is:

1. A process for the preparation of a compound of formula I

NC CH
$$R_3$$
 R_3 R_2 R_3 R_2 R_3 R_3 R_2 R_3 R_3 R_2 R_3 R_3

wherein

each R₀, independently of any other(s), is halogen, C₁-C₆alkyl, C₂-C₆alkenyl, C₂-C₆alkynyl, C₁-C₆haloalkyl, cyano-C₁-C₆alkyl, C₂-C₆haloalkenyl, cyano-C₂-C₆alkenyl, C₂-C₆haloalkynyl, cyano-C₂-C₆alkynyl, hydroxy, hydroxy-C₁-C₆alkyl, C₁-C₆alkoxy, nitro, amino, C₁-C₆alkylamino, di(C₁-C₆alkyl)amino, C₁-C₆alkylcarbonylamino, C₁-C₆alkylaminosulfonyl, C₁-C₆alkylcarbonyl, C₁-C₆alkylcarbonyl-C₁-C₆alkyl, C₁-C₆alkylcarbonyl-C₂-C₆alkenyl, C₁-C₆alkoxycarbonyl-C₁-C₆alkylcarbonyl-C₂-C₆alkenyl, C₁-C₆alkoxycarbonyl-C₂-C₆alkenyl, C₁-C₆alkoxycarbonyl-C₂-C₆alkynyl, cyano, carboxy, phenyl or an aromatic ring containing 1 or 2 hetero atoms selected from the group nitrogen, oxygen and sulfur, wherein the latter two aromatic rings may be substituted by C₁-C₃alkyl, C₁-C₃haloalkyl, C₁-C₃alkoxy, C₁-C₃haloalkoxy, halogen, cyano or by nitro; or

 R_0 , together with the adjacent substituents R_1 , R_2 and R_3 , forms a saturated or unsaturated C_3 - C_6 hydrocarbon bridge that may be interrupted by 1 or 2 hetero atoms selected from the group nitrogen, oxygen and sulfur and/or substituted by C_1 - C_4 alkyl;

 R_1 , R_2 and R_3 are each independently of the others hydrogen, halogen, C_1 - C_6 alkyl, C_2 - C_6 -alkenyl, C_2 - C_6 alkynyl, C_3 - C_6 cycloalkyl, C_1 - C_6 haloalkyl, C_2 - C_6 haloalkenyl, C_1 - C_6 alkoxy-carbonyl- C_2 - C_6 alkenyl, cyano- C_2 - C_6 alkenyl, nitro- C_2 - C_6 -alkenyl, C_2 - C_6 haloalkynyl, C_1 - C_6 alkoxycarbonyl- C_2 - C_6 alkynyl, C_1 - C_6 alkylcarbonyl- C_2 - C_6 -alkynyl, cyano- C_2 - C_6 alkynyl, nitro- C_2 - C_6 alkynyl, C_3 - C_6 halocycloalkyl, hydroxy- C_1 - C_6 alkyl, C_1 - C_6 alkyl, cyano, C_1 - C_6 alkyl, cyano, C_1 - C_6 alkyl, C_1 - C_6 alkyl, C_1 - C_6 alkyl, cyano, C_1 - C_6 alkyl, cyano, C_1 - C_6 alkoxy-carbonyl, hydroxy, C_1 - C_0 alkoxy, C_3 - C_6 alkenyloxy, C_3 - C_6 alkynyloxy, C_1 - C_6 haloalkoxy, C_3 - C_6 alkenyloxy, C_3 - C_6 alkynyloxy, C_1 - C_6 haloalkoxy, C_3 - C_6 -

haloalkenyloxy, C_1 - C_6 alkoxy- C_1 - C_6 alkoxy, mercapto, C_1 - C_6 alkylthio, C_1 - C_6 alkylsulfinyl, C_1 - C_6 alkylsulfonyl, nitro, amino, C_1 - C_6 alkylamino, di(C_1 - C_6 alkyl)amino or phenoxy, wherein the phenyl ring may be substituted by C_1 - C_3 alkyl, C_1 - C_3 haloalkyl, C_1 - C_3 -alkoxy, C_1 - C_3 haloalkoxy, halogen, cyano or by nitro;

R₂ may additionally be phenyl, naphthyl or a 5- or 6-membered aromatic ring that may contain 1 or 2 hetero atoms selected from the group nitrogen, oxygen and sulfur, wherein the phenyl ring, the naphthyl ring and the 5- or 6-membered aromatic ring may be substituted by halogen, C₃-C₈cycloalkyl, hydroxy, mercapto, amino, cyano, nitro or by formyl; and/or

the phenyl ring, the naphthyl ring and the 5- or 6-membered aromatic ring may be substituted by C₁-C₆alkyl, C₁-C₆alkoxy, hydroxy-C₁-C₆alkyl, C₁-C₆alkoxy-C₁-C₆alkyl, C₁-C₆alkoxy-C₁-C₆alkoxy, C₁-C₆alkylcarbonyl, C₁-C₆alkylthio, C₁-C₆alkylsulfinyl, C₁-C₆alkylsulfonyl, mono-C₁-C₆alkylamino, di-C₁-C₆alkylamino, C₁-C₆alkylcarbonylamino, C₁-C₆alkylcarbonyl-(C₁-C₆alkyl)amino, C₂-C₆alkenyl, C₃-C₆alkenyloxy, hydroxy-C₃-C₆alkenyl, C₁-C₆alkoxy-C2-C6alkenyl, C1-C6alkoxy-C3-C6alkenyloxy, C2-C6alkenylcarbonyl, C2-C6alkenylthio, C2-C6alkenylsulfinyl, C2-C6alkenylsulfonyl, mono- or di-C2-C6alkenylamino, C1-C6alkyl(C3-C6alkenyl)amino, C2-C6alkenylcarbonylamino, C2-C6alkenylcarbonyl(C1-C6alkyl)amino, C2-C6alkynyl, C₃-C₆alkynyloxy, hydroxy-C₃-C₆alkynyl, C₁-C₆alkoxy-C₃-C₆alkynyl, C₁-C₆alkoxy- C_4 - C_6 alkynyloxy, C_2 - C_6 alkynylcarbonyl, C_2 - C_6 alkynylthio, C_2 - C_6 alkynylsulfinyl, C_2 - C_6 alkynylsulfonyl, mono- or di- C_3 - C_6 alkynylamino, C_1 - C_6 alkyl(C_3 - C_6 alkynyl)amino, C_2 - C_6 alkynylcarbonylamino or by C₂-C₆alkynylcarbonyl(C₁-C₆alkyl)amino; and/or the phenyl ring, the naphthyl ring and the 5- or 6-membered aromatic ring may be substituted by halo-substituted C₁-C₆alkyl, C₁-C₆alkoxy, hydroxy-C₁-C₆alkyl, C₁-C₆alkoxy- C_1 - C_6 alkyl, C_1 - C_6 alkoxy- C_1 - C_6 alkoxy, C_1 - C_6 alkylcarbonyl, C_1 - C_6 alkylthio, C_1 - C_6 alkylsulfinyl, C_1 - C_6 alkylsulfonyl, mono- C_1 - C_6 alkylamino, di- C_1 - C_6 alkylamino, C_1 - C_6 alkylcarbonylamino, C₁-C₆alkylcarbonyl(C₁-C₆alkyl)amino, C₂-C₆alkenyl, C₃-C₆alkenyloxy, hydroxy-C₃-C₆alkenyl, C_1 - C_6 alkoxy- C_2 - C_6 alkenyl, C_1 - C_6 alkoxy- C_3 - C_6 alkenyloxy, C_2 - C_6 thio, C2-C6alkenylsulfinyl, C2-C6alkenylsulfonyl, mono- or di-C2-C6alkenylamino, C1-C6alkyl-(C₃-C₆alkenyl)amino, C₂-C₆alkenylcarbonylamino, C₂-C₆alkenylcarbonyl(C₁-C₆alkyl)amino, C_2 - C_6 alkynyl, C_3 - C_6 alkynyloxy, hydroxy- C_3 - C_6 alkynyl, C_1 - C_6 alkoxy- C_3 - C_6 alkynyl, C_1 - C_6 alkoxy- C_4 - C_6 alkynyloxy, C_2 - C_6 alkynylcarbonyl, C_2 - C_6 alkynylthio, C_2 - C_6 alkynylsulfinyl, C_2 - C_6 alkynylsulfonyl, mono- or di-C₃-C₆alkynylamino, C₁-C₆alkyl(C₃-C₆alkynyl)amino, C₂-C₆alkynylcarbonylamino or C₂-C₆alkynylcarbonyl(C₁-C₆alkyl)amino; and/or

the phenyl ring, the naphthyl ring and the 5- or 6-membered aromatic ring may be substituted by a radical of formula COOR₅₀, CONR₅₁, SO₂NR₅₃R₅₄ or SO₂OR₅₅, wherein R₅₀, R₅₁, R₅₂, R₅₃, R₅₄ and R₅₅ are each independently of the others C₁-C₆alkyl, C₂-C₆alkenyl or C₃-C₆alkynyl or halo-, hydroxy-, alkoxy-, mercapto-, amino-, cyano-, nitro-, alkylthio-, alkylsulfinyl- or alkylsulfonyl-substituted C₁-C₆alkyl, C₂-C₆alkenyl or C₃-C₆alkynyl; and n is 0, 1 or 2.

by reaction of a compound of formula II

$$R_1 \xrightarrow{X} R_3 \\ (R_0)_n$$
 (II),

wherein

R₀, R₁, R₂, R₃ and n are as defined and X is a leaving group, with malonic acid dinitrile in an inert diluent in the presence of a palladium catalyst and a base, which process comprises using as the base a hydroxide of an alkali metal or a mixture of hydroxides of alkali metals.

- 2. A process according to claim 1, wherein, in the compound of formula II, X is halogen; $R_{10}S(O)_2O$ wherein R_{10} is methyl, halomethyl, C_4F_9 -(n), phenyl or phenyl substituted from one to three times by halogen, methyl or by halomethyl; or is mono-, di- or tri-arylmethoxy.
- 3. A process according to claim 2, wherein X is chorine, bromine, iodine, $CF_3S(O)_2O$ -(triflate), $CF_3(CF_2)_3S(O)_2O$ (nonaflate), p-tolyl-S(O)₂O- (tosylate), $(C_6H_5)_2CHO$ -, $(CH_3-C_6H_4)_2CHO$ -, $(C_6H_5)_3CO$ (trityl) or $(CH_3-C_6H_4)_3CO$ -.
- 4. A process according to claim 3, wherein X is chlorine, bromine or iodine.
- 5. A process according to claim 4, wherein as palladium catalyst there is used a palladium(II) dihalide, palladium(II) acetate, palladium(II) sulfate, bis(triphenylphosphine)palladium(II) dichloride, bis(tricyclopentylphosphine)palladium(II) dichloride, bis(tricyclohexylphosphine)palladium(II) dichloride, bis(tricyclohexylphosphine)palladium(II) dichloride, bis(dibenzylideneacetone)palladium(0) or tetrakis(triphenylphosphine)palladium(0).

- 6. A process according to claim 1, wherein the palladium catalyst is prepared *in situ* from palladium(II) or palladium(0) compounds by complexing with phosphine ligands.
- 7. A process according to claim 1, wherein the palladium catalyst is used in an amount of from 0.001 to 100 mol% based on the compound of formula II.
- 8. A process according to claim 1, wherein as diluent there is used an aliphatic, cyclo-aliphatic or aromatic hydrocarbon, an aliphatic halohydrocarbon, a nitrile, an ether, an alcohol, a ketone, an ester or a lactone, an N-substituted lactam, an amide, an acyclic urea, a sulfoxide or water or a mixture of those diluents.
- 9. A process according to claim 8, wherein as an aromatic hydrocarbon there is used an ether, an N-substitued lactam, an amide, an acyclic urea or a sulfoxide.
- 10. A process according to claim 9, wherein N-methylpyrrolidone is used.
- 11. A process according to claim 1, wherein as base there is used sodium hydroxide or potassium hydroxide or a mixture of sodium hydroxide and potassium hydroxide.
- 12. A process according to claim 11, wherein sodium hydroxide is used as the base.
- 13. A process according to claim 10, wherein the base is used in an equivalent amount or in an excess of from 2 to 10 equivalents in relation to malonic acid dinitrile.
- 14. A process according to claim 1, wherein the reaction is carried out at a temperature of from 0° to 250°C.
- 15. A process according to claim 1, wherein the reaction of the malonic acid dinitrile with a compound of formula II is carried out at elevated pressure.